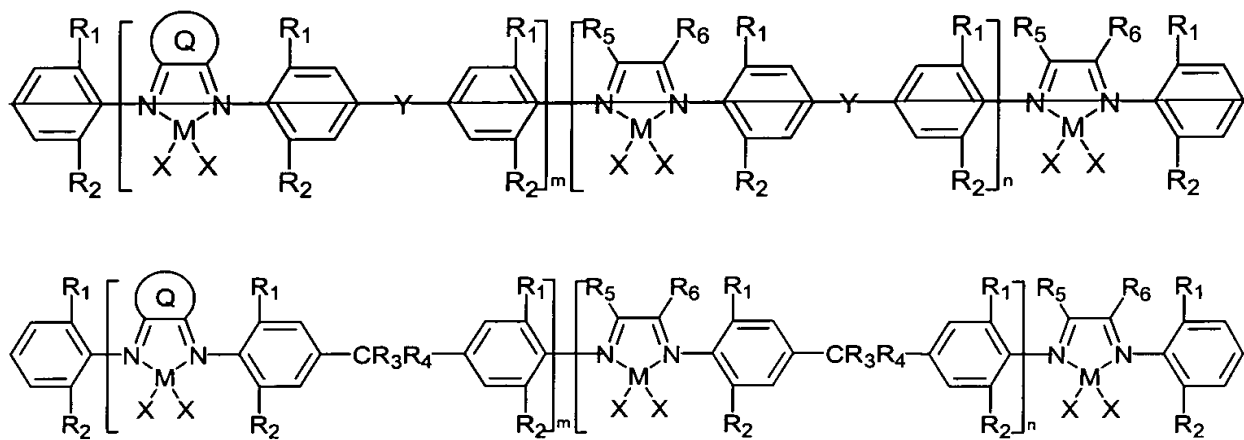


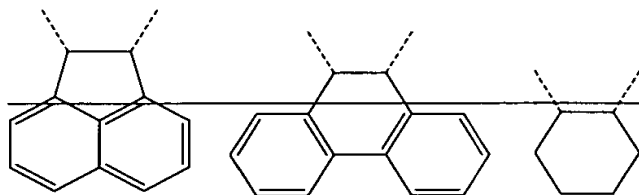
## IN THE CLAIMS:

Please rewrite pending claims 1-10 (claim 11 having been withdrawn as being directed to non-elected subject matter) as follows:

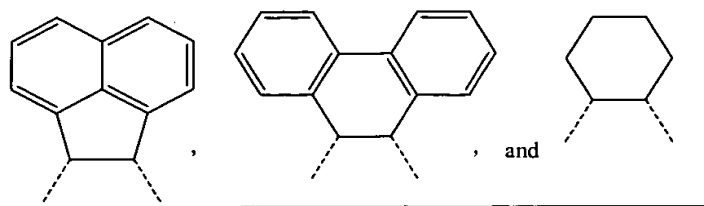
1. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex represented by the following formula:



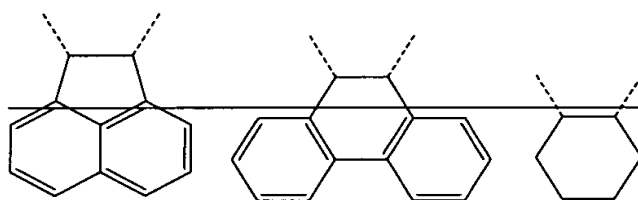
wherein M is Ni; X is Cl or Br; each of m and n is independently an integer from 0 to 100, and n is an integer from 0 to 100; wherein at least one of m and n is not 0, respectively; R<sub>1</sub> and R<sub>2</sub> are the same or different, and are selected from the group consisting of H, methyl, ethyl, isopropyl and tert-butyl; Y is CR<sub>3</sub>R<sub>4</sub>; wherein R<sub>3</sub> and R<sub>4</sub> are the same or different, and are selected from the group consisting of H, methyl, ethyl, propyl, butyl and phenyl, or R<sub>3</sub> and R<sub>4</sub> forming form a cyclic alkyl group; R<sub>5</sub> and R<sub>6</sub> are the same or different, and is selected from the group consisting of methyl, ethyl, propyl and a heterocyclic group; Q is a cyclic divalent residual group of the following formula or a mixture thereof:



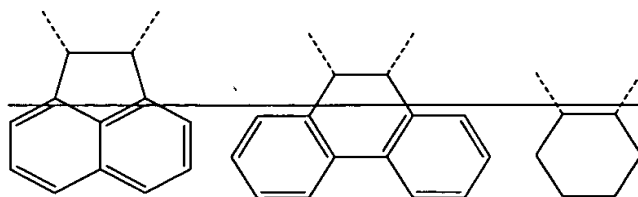
and each Q is independently.



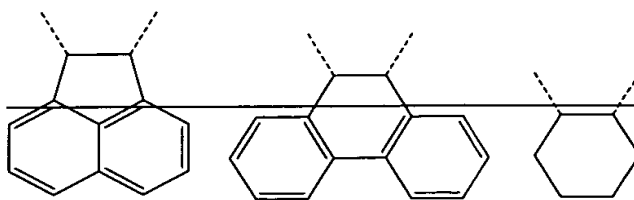
2. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, M is Ni; X is Cl or Br; m is an integer from 1 to 100, and n is 0; ~~R<sub>1</sub> and R<sub>2</sub> is the same or different, and is selected from the group consisting of H, methyl, ethyl, isopropyl and tert-butyl; Y is CR<sub>3</sub>R<sub>4</sub>, wherein R<sub>3</sub> and R<sub>4</sub> is the same or different and is selected from the group consisting of H, methyl, ethyl, propyl, butyl and phenyl, or R<sub>3</sub> and R<sub>4</sub> forming a cyclic alkyl group; Q is a cyclic divalent residual group of the following formula or a mixture thereof:~~



3. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, X is Br; m is an integer from 1 to 20, n is 0; R<sub>1</sub> is isopropyl, R<sub>2</sub> is methyl or isopropyl; ~~Y is CR<sub>3</sub>R<sub>4</sub>, wherein R<sub>3</sub> and R<sub>4</sub> is are the same and is are H or methyl, or R<sub>3</sub> and R<sub>4</sub> forming form a cyclohexyl group;~~ Q is a cyclic divalent residual group of the following formula or a mixture thereof:



4. A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1 ~~3~~, wherein, ~~X is Br~~; m is an integer from 1 to 10; ~~n is 0~~; R<sub>1</sub> is isopropyl, R<sub>2</sub> is methyl or isopropyl; ~~Y is CR<sub>3</sub>R<sub>4</sub>; wherein R<sub>3</sub> and R<sub>4</sub> is the same and is H or methyl, or R<sub>3</sub> and R<sub>4</sub> forming a cyclohexyl group;~~ Q is a cyclic divalent residual group of the following formula:

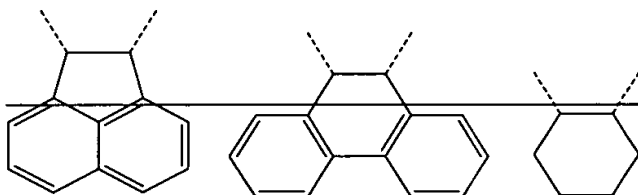


5. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, M is Ni; X is Cl or Br; m is 0, and n is an integer from 1 to 100;  $R_1$  and  $R_2$  is the same or different and is selected from the group consisting of H, methyl, ethyl, isopropyl and tert butyl; Y is  $CR_3R_4$ , wherein  $R_3$  and  $R_4$  is the same or different and is selected from the group consisting of H, methyl, ethyl, propyl, butyl and phenyl, or  $R_3$  and  $R_4$  forming a cyclic alkyl group;  $R_5$  and  $R_6$  is the same or different and is selected from the group consisting of methyl, ethyl, isopropyl and heterocyclic group.

6. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, X is Br; m is 0, n is an integer from 1 to 30;  $R_1$  is isopropyl,  $R_2$  is methyl or isopropyl; Y is  $CR_3R_4$ , where  $R_3$  and  $R_4$  is are the same, and is are H or methyl, or,  $R_3$  and  $R_4$  forming form a cyclohexyl group; and  $R_5$  and  $R_6$  is are methyl.

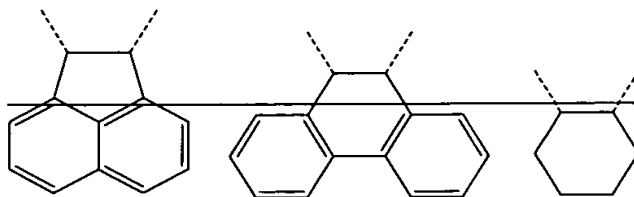
7. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, X is Br; m is 0, n is an integer from 1 to 20;  $R_1$  and  $R_2$  is are isopropyl; Y is  $CR_3R_4$ , where  $R_3$  and  $R_4$  is are the same, and is are H or methyl; and  $R_5$  and  $R_6$  is are methyl.

8. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, X is Br; m is an integer from 1 to 10, n is an integer from 1 to 20;  $R_1$  is isopropyl,  $R_2$  is methyl or isopropyl; Y is  $CR_3R_4$ , where  $R_3$  and  $R_4$  is are the same, and is are H or methyl, or  $R_3$  and  $R_4$  forming form a cyclohexyl group; and  $R_5$  and  $R_6$  is are methyl; Q is a cyclic divalent residual group of the following formula:



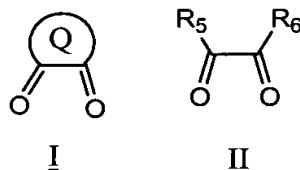
9. (Currently Amended) A polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, wherein, X is Br; m is an integer from 1 to 10, n is an integer from 1 to 20;  $R_1$  and  $R_2$  is are

methyl;  $Y$  is  $CR_3R_4$ , where  $R_3$  and  $R_4$  is are the same, and is are H or methyl; and  $R_5$  and  $R_6$  is are methyl;  $Q$  is a cyclic divalent residual group of the following formula:

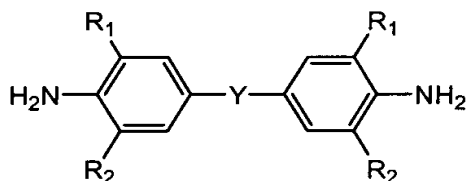


10. (Currently Amended) A method for the preparation of the polynuclear  $\alpha$ -diimine Ni(II) complex of claim 1, comprising the steps of:

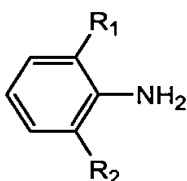
(a) condensing an  $\alpha$ -diketone represented by the formula I, II or a mixture thereof,



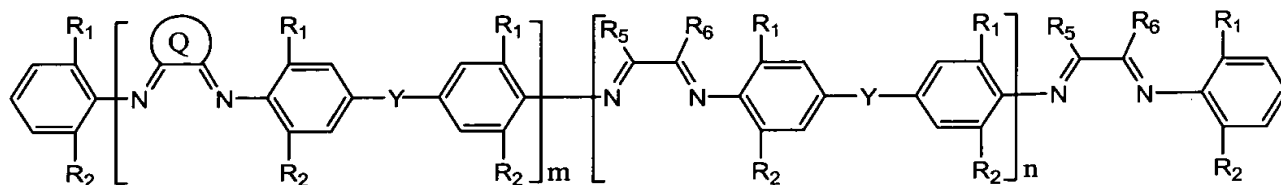
wherein,  $Q$ ,  $R_5$  and  $R_6$  have the same definition in claim 1, a substituted aromatic diamine represented by the formula



wherein,  $R_1$ ,  $R_2$  and  $Y$  are as defined in claim 1, and a substituted aromatic amine represented by the formula

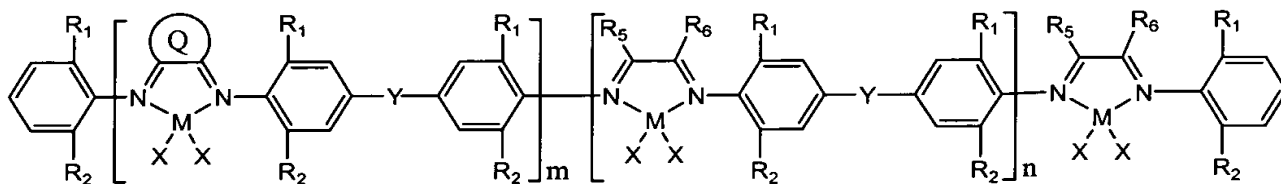


wherein,  $R_1$  and  $R_2$  are as defined in claim 1, in a medium of alcohol, aromatic hydrocarbon, alcohol-ether mixture, or alcohol-halogenated hydrocarbon mixture and under the catalytic action of  $HCOOH$ ,  $CF_3COOH$ ,  $HF$ ,  $HCl$ ,  $HBr$ , or  $HI$  or  $HX$ , wherein  $X$  is F, Cl, Br, or I; thereby obtaining an oligomer of substituted  $\alpha$ -diimine of the formula



wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $Q$ ,  $Y$ ,  $m$  and  $n$  have the same definition in claim 1;

(b) carrying out coordination reaction of the oligomer of step (a) with  $NiX_2$ , wherein  $X$  is  $Cl$  or  $Br$ , in the absence of water and oxygen, thereby obtaining a polynuclear  $\alpha$ -diimino  $Ni(II)$  complex of the following formula:



wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $Q$ ,  $Y$ ,  $M$ ,  $X$ ,  $m$  and  $n$  have the same definition are as defined in claim 1.

11. (Withdrawn)